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Rami Vaittinen

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EXAMINER

LAEKEMARIAM, YOSEF K

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---|---|--|
| Office Action Summary | Application No. 10/802,407 | Applicant(s) VAITTINEN ET AL. | |
| | Examiner YOSEF K. LAEKEMARIAM | Art Unit 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-26 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecun et al. (6,714, 781) in view of Ko et al. (US 2006/0227754)

Regarding claims 1 and 33, Pecun discloses a method comprising while in a packet transfer mode (Col.4 lines 56-60) maintaining packet switched resources (Col.2 lines 62-67 and Col.4 lines 10-16) in the packet-transfer mode (Col.4 lines 56-60), and receiving a dual transfer mode assignment message (abstract lines 6-9) as a result of using the packet associated channel to convey the radio link control or multiple access control message (Col.1 lines 16-27), wherein in the dual transfer mode a packet switched connection and circuit switched connection may be used together (abstract lines 3-9 and Col.1 lines 28-38).

Pecun discloses the invention set forth above except for the claimed step of “using a packet associated control channel to convey a radio link control or multiple access control message ”

Ko discloses the steps of using a packet associated control channel to convey a radio link control or multiple access control message (Paragraphs: 0007-0008 and 0097).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Pecun, and utilize a packet associated control channel to

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convey a radio link control or multiple access control message as taught by Ko, thus allowing more efficient method to of wireless communication system to convey a radio link control using a packet associated control channel, as discussed by Ko.

Regarding claims 15 and 31, Pecen discloses an apparatus comprising: while in a packet transfer mode a processing unit, configured to receive a dual transfer mode assignment message via the transceiver (Col.4 lines 3-16 and fig.1, 118, 120) as a result of the radio link or multiple access control message (Col.3 lines 57-67, Col.4 lines 1-12 and Col.5 lines 28-38), wherein the apparatus is configured to maintain the packet switched connection in the packet-transfer mode (Col.4 lines 56-67) while the radio link or multiple access control message is conveyed and the dual transfer mode assignment message is received (abstract lines 1-9 and Col.5 lines 39-44), and wherein in the dual transfer mode a packet switched connection and circuit switched connection may be used together (abstract lines 3-9 and Col.1 lines 28-38).

Pecen discloses the invention set forth above except for the claimed “transceiver configured to use a packet associated control channel that conveys a radio link control or multiple access control message”

Ko discloses a transceiver for using a packet associated control channel that conveys a radio link control or multiple access control message (Paragraphs: 0007-0008 and 0097).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Pecen, and utilize a packet associated control channel to convey a radio link control or multiple access control message as taught by Ko, thus allowing more efficient method to of wireless communication system to convey a radio link control using a packet associated control channel, as discussed by Ko.

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Considering claims 2, 18 and 34, Pecen and Ko together discloses the method of claims 1, 15 and 33, Pecen further discloses the radio link control or multiple access control message is from the mobile terminal to a network in order to request the circuit switched connection (Col.6 lines 21-26), and wherein the dual transfer mode assignment message is from the network to the mobile terminal in order to initiate establishment of the circuit switched connection and allocate resources (Col.5 lines 24-38).

Considering claim 3, Pecen and Ko together discloses the method of claim 1, Ko further discloses the dual transfer mode assignment message is conveyed by the radio link or multiple access control message from a network to the mobile terminal (Paragraphs: 0007-0008 and 0097).

Considering claims 4 and 19, Pecen and Ko together discloses the method of claims 1 and 15, Pecen further discloses the dual mode corresponds to a Class-A mode, and the single mode corresponds to a Class-B or Class-C mode (Col.1 lines 28-46).

Considering claims 5 and 20, Pecen and Ko together discloses the method of claims 1 and 20, Pecen further discloses the maintaining step precludes idling packet resources (Col.4 lines 6-11).

Considering claims 6 and 21 Pecen and Ko together discloses the method of claims 2 and 21, Ko further discloses wherein the radio link control or multiple access control message encapsulates at least one radio resource control message, or an additional radio link control or multiple access control message is introduced for each reply from the network (Paragraph: 0007 and 0022).

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Considering claims 7 and 22 Pecen and Ko together discloses the method of claims 6 and 22, Ko further discloses the radio link control or multiple access control message is a packet CS command message (Paragraph: 0007).

Considering claims 8 and 23, Pecen and Ko together discloses the method of claims 6 and 21, Ko further discloses the radio link or multiple access control message is in response to paging by the network (Paragraph: 0022 and fig.12).

Considering claims 9 and 24 Pecen and Ko together discloses the method of claims 6 and 21, Pecen further discloses the radio link or multiple access control message includes a packet circuit switch request (Col.1 lines 16-20)

Considering claims 10 and 25, Pecen and Ko together discloses the method of claims 6 and 21, Ko further discloses the mobile terminal makes a plurality of attempts to send the radio link or multiple access control message, the mobile terminal starts a timer after the plurality of attempts, and if the timer expires then packet resources are released (Paragraphs: 0062 and 0078).

Considering claims 11, Pecen and Ko together discloses the method of claim 6, Pecen further discloses if the network cannot allocate packet switched resources then packet resources are released (Col.2 lines 8-13).

Considering claim 12, Pecen and Ko together discloses the method of claim 6, Pecen further discloses if the network cannot allocate circuit switched resources the mobile terminal continues in packet transfer mode only (Fig.2, 132).

Considering claims 13 and 26, Pecen and Ko together discloses the method of claims 3 and 21, Pecen further discloses the dual transfer mode assignment message or an immediate

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assignment message includes an indication of being sent instead of a packet paging request message (Col.4 lines 59-61).

Considering claim 14, Pecen and Ko together discloses a computer readable medium encoded with a software data structure sufficient for performing the method of claim 1 (Paragraph: 0054).

Considering claims 16 and 32, Pecen and Ko together discloses the mobile terminal of claims 15 and 31, Pecen further comprising: a packet switch device, for processing and passing an uninterrupted data signal between the processing unit and the transceiver; and a circuit switch device, for processing and passing a voice signal between the processing unit and the transceiver, the voice signal being initiated after the dual transfer mode assignment message is received (Fig.1, 118, 120).

Considering claim 17, Pecen and Ko together discloses the mobile terminal of claim 15, Pecen further discloses the radio link or multiple access control message is transmitted by the transceiver, in order to request the circuit switched connection (Col.2 lines 40-50).

Response to Arguments

3. Applicant's arguments filed 01-09-2009 have been fully considered but they are not persuasive. The features which the applicant argued, i.e. a method and apparatus for performing a transition from a packet transfer mode to a dual transfer mode, in which packets are transferred to a dual transfer mode, wherein packet switched and circuit switched connections are used together for sending and receiving information, read on Pecen et al. as Pecen reference teaches, the needs of a single transceiver for receipt and handling of a paging message that originates

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from the packet-switched domain while a mobile station is engaged in a circuit-switched domain voice call (Pecen: Col.2 lines 14-17). Pecen also discusses after a packet-switched paging message originating from a packet-switched domain is received by a base station controller from a serving GPRS support node, the base station controller determines whether the mobile station is capable of operating in dual transfer mode. If the base station controller determines that the mobile station is capable of operating in a dual transfer mode and If the base station controller determines that the mobile station is not currently engaged in circuit-switched voice interchange activity, the packet-switched paging message is sent to the mobile station on the paging channel (Col.4 lines 56-67 and Col.5 lines 1-13), therefore Pecen discloses a method and apparatus for performing a transition from a packet mode to a dual transfer mode in which packets are transferred. As a result, the argued features were disclosed upon the cited reference.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF K. LAEKEMARIAM whose telephone number is (571) 270-5149. The examiner can normally be reached on Regular hours 8:30 am - 5:30 pm M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melur Ramakrishnaiah/
Primary Examiner, Art Unit 2614

/YOSEF K LAEKEMARIAM/
Examiner, Art Unit 2614
04-24-2009